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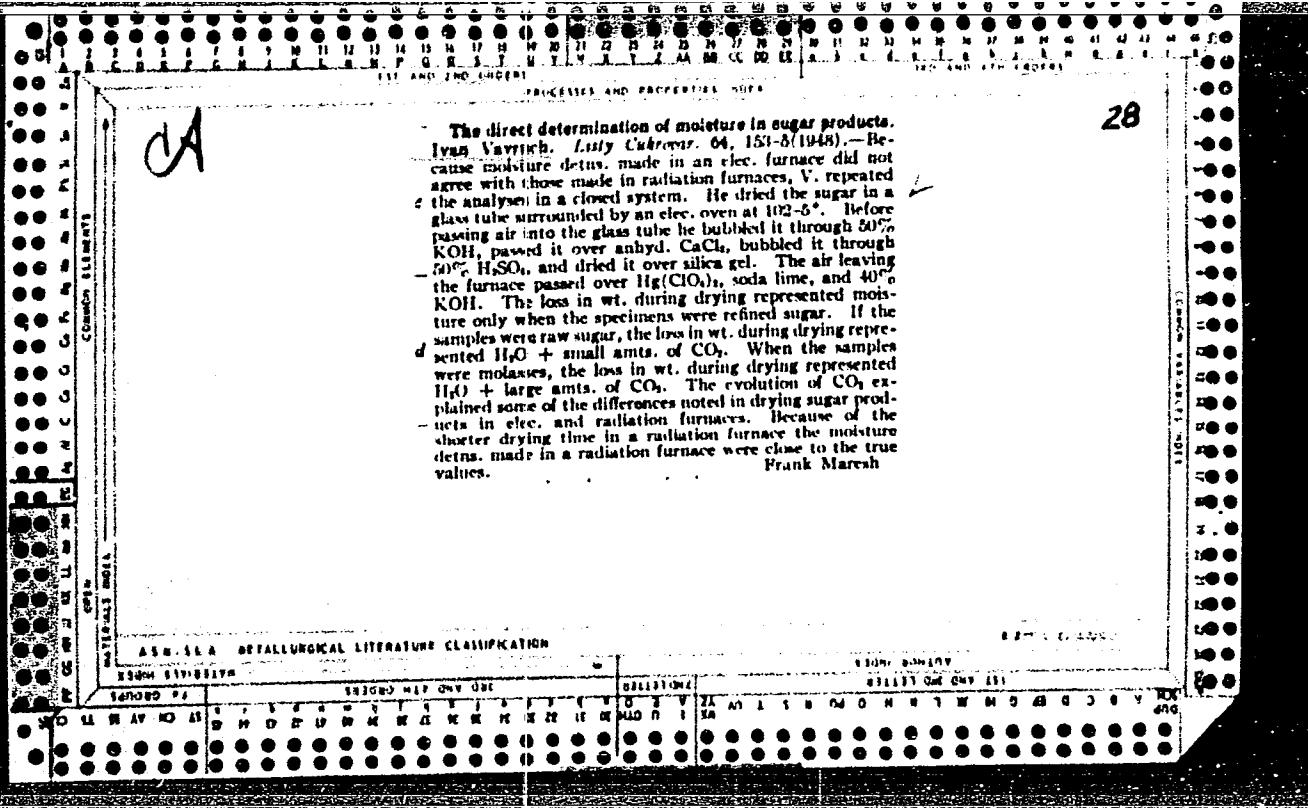
The evaluation of refined sugar products by means of the polarographic method. Ivan Vavrich. *Listy Cukrovar.* 66, 35-7 (1949).—The com. refined sugar used as a standard was replaced by a refined sugar which had been purified with activated charcoal and then recrystd. from EtOH. In polarograms this recrystd. sugar was practically free from interfacially active ingredients. Molasses from different sources showed a variation in the damping effect. With the addn. of methyl orange the damping effect was eliminated and led to corrected molasses curves giving the relation between the molasses and the height of the O max. Sample computations accompany the development of the curves. Frank Muresh

The polarographic studies of the effect of a medium upon the formation of interfacially active substances in refined products. Ivan Vayrusch, *Izdat. Cukrovar.* 65, 155-60 (1919).—In the range usually used in polarographic titrations, additions of K_2SO_4 , $NaOH$, Na_2CO_3 , NH_4Cl , NH_4OAc , and asparagine to solns. of refined sugar did not influence the O max., and indicates that capillary active substances do not arise when the alkalies and sugar are heated. The exposure of refined sugar to moisture at different temps. did not lead to the formation of interfacially active substances. Exposure of refined sugars to lowered pressures raised the O max., in a few instances and hints at the removal of the liquid, interfacially active substances. The re-heating of refined sugars in soln. suppressed the O max., as a consequence of a disturbed gaseous equil.; after a thorough shaking the O max. returned to the original level. Impurities produced a drop in the O max. of refined sugar solns.: their effect was accentuated by the application of heat. Frank Maresh

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The effects of sucrose, starch, gelatin, and molasses upon the adhesion of microscopic particles. Ivan Vavrušek. *Liny Českou.* 65, 1-3(1948). Using 100-μ particles of graphite, glass, plaster of Paris, and PbSO₄, V. measured the specific adhesion in the manner of Buzágh (*C.A. 23, 3388*) and Hauser and Lynn (*Expt. in Collod Chemistry* 1940, (*C.A. 34, 7172*)) in solns. of sucrose. A rise in the sucrose concn. from 5 to 30% lowered the specific adhesion of hydrophobic particles but raised the adhesion of particles which were more hydrophilic than organophilic. In the range 30 to 60% sucrose the adhesion of the hydrophilic particles was diminished only slightly. In starch solns. the specific adhesion of hydrophobic particles reached a min. in 0.01% starch and with hydrophobic particles a max. in 0.02% starch. Increasing concns. of gelatin lowered the adhesion of hydrophobic particles but increased the adhesion of hydrophilic particles until attaining the concn. of 0.05%; in higher concns. of gelatin the adhesion was diminished. Molasses was similar to gelatin, but its effects were only 0.1 as large.
Frank Maresh

A88-514 METALLURGICAL LITERATURE CLASSIFICATION

| STANDARD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 518 | 519 | 520 | 521 | 522 | 523 | 524 | 525 | 526 | 527 | 528 | 529 | 530 | 531 | 532 | 533 | 534 | 535 | 536 | 537 | 538 | 539 | 540 | 541 | 542 | 543 | 544 | 545 | 546 | 547 | 548 | 549 | 550 | 551 | 552 | 553 | 554 | 555 | 556 | 557 | 558 | 559 | 560 | 561 | 562 | 563 | 564 | 565 | 566 | 567 | 568 | 569 | 570 | 571 | 572 | 573 | 574 | 575 | 576 | 577 | 578 | 579 | 580 | 581 | 582 | 583 | 584 | 585 | 586 | 587 | 588 | 589 | 590 | 591 | 592 | 593 | 594 | 595 | 596 | 597 | 598 | 599 | 600 | 601 | 602 | 603 | 604 | 605 | 606 | 607 | 608 | 609 | 610 | 611 | 612 | 613 | 614 | 615 | 616 | 617 | 618 | 619 | 620 | 621 | 622 | 623 | 624 | 625 | 626 | 627 | 628 | 629 | 630 | 631 | 632 | 633 | 634 | 635 | 636 | 637 | 638 | 639 | 640 | 641 | 642 | 643 | 644 | 645 | 646 | 647 | 648 | 649 | 650 | 651 | 652 | 653 | 654 | 655 | 656 | 657 | 658 | 659 | 660 | 661 | 662 | 663 | 664 | 665 | 666 | 667 | 668 | 669 | 670 | 671 | 672 | 673 | 674 | 675 | 676 | 677 | 678 | 679 | 680 | 681 | 682 | 683 | 684 | 685 | 686 | 687 | 688 | 689 | 690 | 691 | 692 | 693 | 694 | 695 | 696 | 697 | 698 | 699 | 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | 708 | 709 | 710 | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 | 720 | 721 | 722 | 723 | 724 | 725 | 726 | 727 | 728 | 729 | 730 | 731 | 732 | 733 | 734 | 735 | 736 | 737 | 738 | 739 | 740 | 741 | 742 | 743 | 744 | 745 | 746 | 747 | 748 | 749 | 750 | 751 | 752 | 753 | 754 | 755 | 756 | 757 | 758 | 759 | 760 | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 770 | 771 | 772 | 773 | 774 | 775 | 776 | 777 | 778 | 779 | 780 | 781 | 782 | 783 | 784 | 785 | 786 | 787 | 788 | 789 | 790 | 791 | 792 | 793 | 794 | 795 | 796 | 797 | 798 | 799 | 800 | 801 | 802 | 803 | 804 | 805 | 806 | 807 | 808 | 809 | 810 | 811 | 812 | 813 | 814 | 815 | 816 | 817 | 818 | 819 | 820 | 821 | 822 | 823 | 824 | 825 | 826 | 827 | 828 | 829 | 830 | 831 | 832 | 833 | 834 | 835 | 836 | 837 | 838 | 839 | 840 | 841 | 842 | 843 | 844 | 845 | 846 | 847 | 848 | 849 | 850 | 851 | 852 | 853 | 854 | 855 | 856 | 857 | 858 | 859 | 860 | 861 | 862 | 863 | 864 | 865 | 866 | 867 | 868 | 869 | 870 | 871 | 872 | 873 | 874 | 875 | 876 | 877 | 878 | 879 | 880 | 881 | 882 | 883 | 884 | 885 | 886 | 887 | 888 | 889 | 890 | 891 | 892 | 893 | 894 | 895 | 896 | 897 | 898 | 899 | 900 | 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 | 909 | 910 | 911 | 912 | 913 | 914 | 915 | 916 | 917 | 918 | 919 | 920 | 921 | 922 | 923 | 924 | 925 | 926 | 927 | 928 | 929 | 930 | 931 | 932 | 933 | 934 | 935 | 936 | 937 | 938 | 939 | 940 | 941 | 942 | 943 | 944 | 945 | 946 | 947 | 948 | 949 | 950 | 951 | 952 | 953 | 954 | 955 | 956 | 957 | 958 | 959 | 960 | 961 | 962 | 963 | 964 | 965 | 966 | 967 | 968 | 969 | 970 | 971 | 972 | 973 | 974 | 975 | 976 | 977 | 978 | 979 | 980 | 981 | 982 | 983 | 984 | 985 | 986 | 98 |
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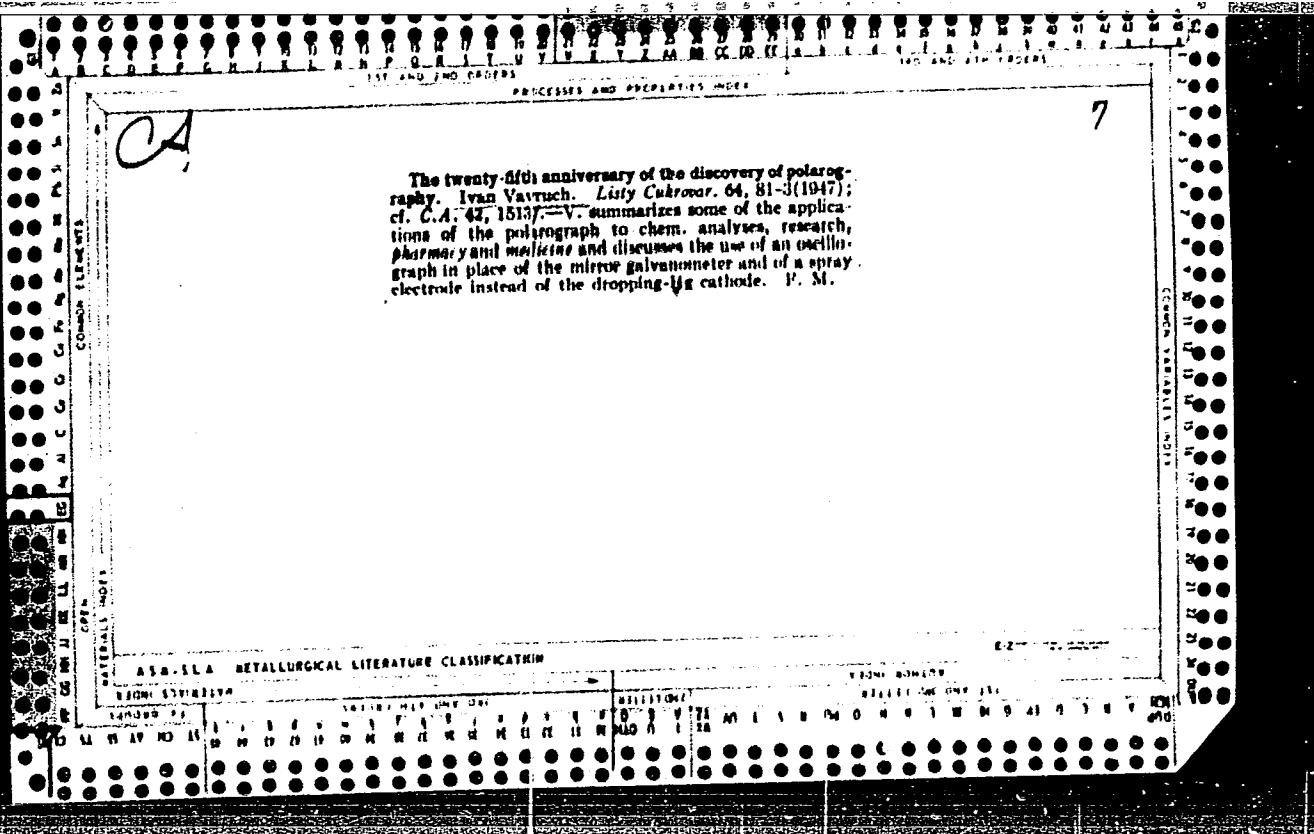
| COMMON ELEMENTS | | PROCESSES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | |
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| 1ST AND 2ND GROUPS | 3RD AND 4TH GROUPS | PROCESSES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | |
| <i>Ca</i> | | <p>Application of polarography and conductometry to the evaluation of refined sugars. Ivan Vavrich, Z. Zuck-erind. Bokmen Mahren 66, 43 (1942); Chem. Zentr. 1943, I, 1425; cf. C. A. 38, 35031. — Polarographic and cond. measurements have been made upon 64 samples of refined sugar produced from masscetes of varying purity, and the limits within which the ratio between the mg. molasses and the ash content of the white sugar may vary have been detd. A simple factor has been established from the exptl. results. This factor can be used for approx. evaluating the sugar from the polarographic and cond. data. Cases are discussed where the type of material from which a given sugar has been produced can be ascertained from the analysis of the sugar. The method described facilitates the choice of the most economic procedure for producing sugar of the prescribed specifications.</p> <p>F. W. Zerban</p> | | | | | | | | | | | | | | | | | |
| MATERIALS INDEX | CORE | | | | | | | | | | | | | | | | | | |
| A10-15-A METALLURGICAL LITERATURE CLASSIFICATION | | EXPTL. INDEX | | | | | | | | | | | | | | | | | |
| ARTICLES INDEX | | SUBJ. INDEX | | | | | | | | | | | | | | | | | |
| 1ST AND 2ND GROUPS | | 3RD AND 4TH GROUPS | | | | | | | | | | | | | | | | | |
| 2ND GROUP | | 3RD GROUP | | | | | | | | | | | | | | | | | |
| 3RD GROUP | | 4TH GROUP | | | | | | | | | | | | | | | | | |
| 4TH GROUP | | 5TH GROUP | | | | | | | | | | | | | | | | | |
| 5TH GROUP | | 6TH GROUP | | | | | | | | | | | | | | | | | |
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| 13TH GROUP | | 14TH GROUP | | | | | | | | | | | | | | | | | |
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| 15TH GROUP | | 16TH GROUP | | | | | | | | | | | | | | | | | |
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| 23RD GROUP | | 24TH GROUP | | | | | | | | | | | | | | | | | |
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| 32ND GROUP | | 33RD GROUP | | | | | | | | | | | | | | | | | |
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| 379TH GROUP | | | | | | | | | | | | | | | | | | | |

Effects of sulfites on the height of the polarographic O maxima. Ivan Vavrušek, Z. Zuckerind, Bühnen Mahren 66, 151-3 (1943); *Chem. Ztschr.* 1943, II, 378.—Sulfites do not have a noticeable effect on the O max. of a normal wt. sucrose soln. in 0.02 N K_2SO_4 , until their concn. is 3 times as high as that normally found in com. refined sugar. The suppression of the O max. in some refined sugars is caused mainly by surface-active substances which occur in small quantities in every refined sugar. F. W. Zerban

A34.36.4 METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/31/2001

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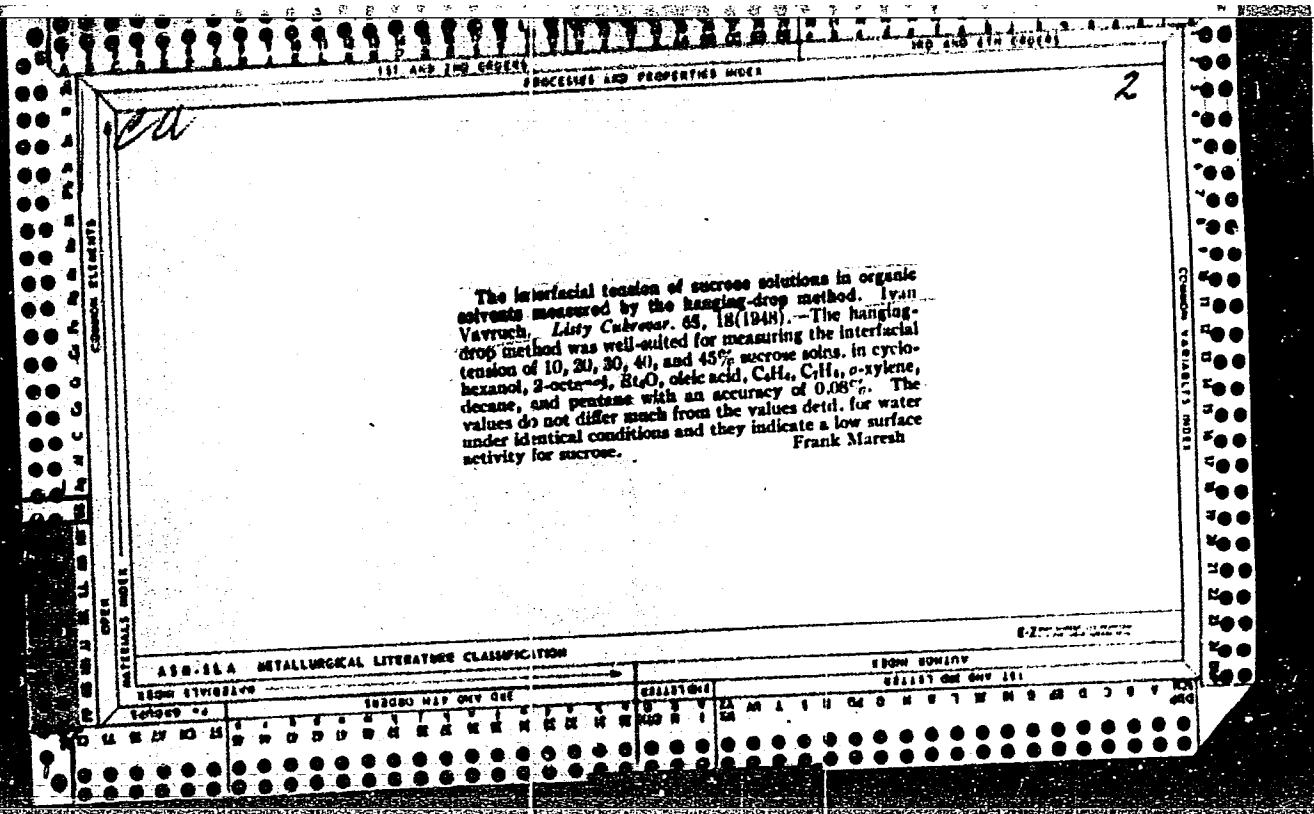
Ch

2

The physical chemistry of the surfaces of aqueous solutions of sucrose. Ivan Vavruch. *Listy Českého. 65, 53-4 (1946).* — The decrease in the concn. of sucrose at the surface can be detd. most dependably by the hanging-drop method from calculus, derived from the Gibbs equation; the du Nouy and dyadic methods do not rest upon such a sound foundation. The work of cohesion computed for concns. of sucrose ranging from 10 to 50% Balling and over the temp. range 25-50° rises with an increase in the sucrose concn. but falls with a rise in temp. For 10, 30, and 45% Balling solns. of sucrose the work of adhesion of these solns. in cyclohexanol, 2-octanol, Et₂O, oleic acid, C₆H₆, C₇H₈, and o-xylene is given. With increasing concns. of sucrose the work of adhesion rose in cyclohexanol, 2-octanol, Et₂O, and oleic acid but fell in C₆H₆, C₇H₈, and o-xylene.

Frank Maresi

| ASME METALLURGICAL LITERATURE CLASSIFICATION | | | | | | | | | | | | EQUIVALENT CLASSIFICATION | | | | | | | | | | | |
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| ECONOMIC CLASSIFICATION | | | | | | | | | | | | TECHNICAL CLASSIFICATION | | | | | | | | | | | |
| SUBDIVISION | | | | | | | | | | | | SUBDIVISION | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |



The relation of the surface tension of variously concentrated sucrose solutions to the temperature by means of the hanging-drop method. Ivan Vavrušek. *Lidové Českury.* 64, 245-8 (1948). A hanging drop of 10 to 50 g. sucrose in 100 g. of sol. suspended between photometric couple lenses in air in the temp. range 25-50° showed the following math. relation between surface tension and temp.

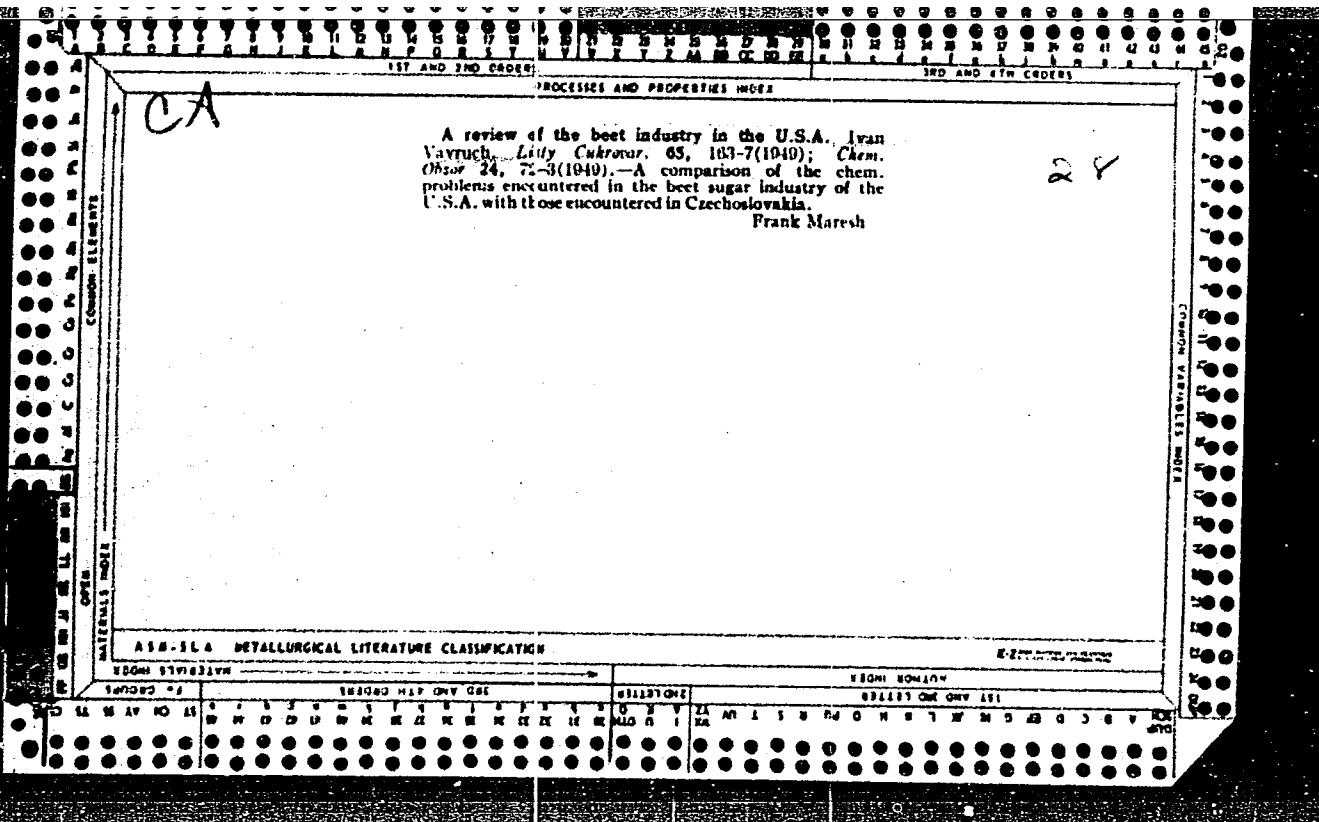
$$k_B = -(\gamma_1(M_P)^{1/2} - \gamma_2(M_S)^{1/2})/(t_1 - t_2)$$
, where M is the mol. wt., γ_1 is the sp. vol. at t_1 , γ_2 is the sp. vol. at t_2 , and γ is the surface tension, and k_B is the Bortov's const. From the Walden equation $k_B = 1.00 + 0.0112\sigma\sqrt{V}$.

where A is the at. wt. and n is the no. of atoms of each element in the compnd. For sucrose R becomes $3 \times 1.90 + 0.01(12\sqrt{12} + 22 + 11\sqrt{16}) = 0.88$. From the exptl. data R had an av. value of 0.07. Soglen's relation $P = V_m^{-\gamma}$ ^{18,19} where P is the parachor, V_m the mol. vol., and γ the surface tension calls for a theoretical value of 804 computed from equiv. parachors for sucrose. From the exptl. data an av. value of 871 was found. For eqq. solns. of sucrose P was not const. but became smaller with a rise in temp. as well as with a rise in concn. The change in P produced by a rise in temp. was smaller than the change produced by a rise in concn. F. Matesh.

ASB-318 METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/31/2001

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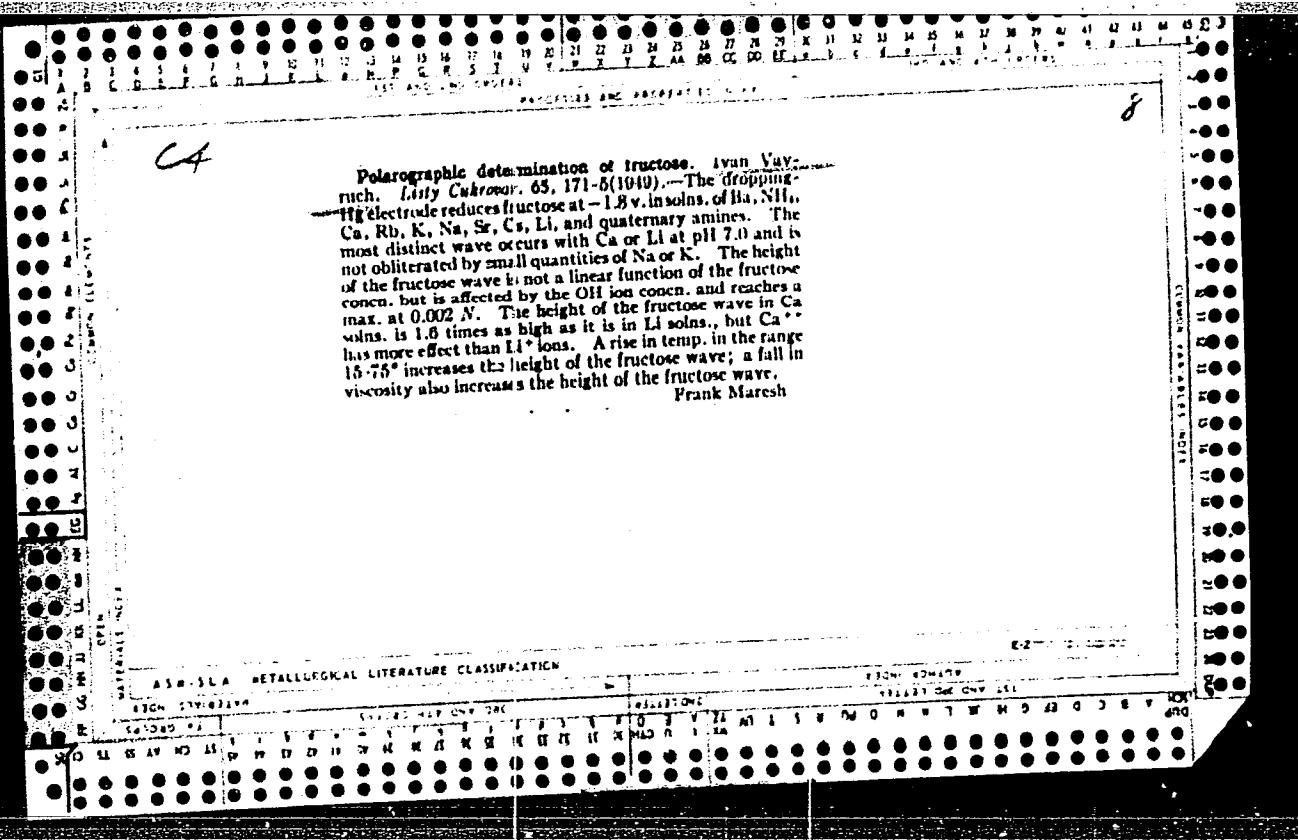


CP
Sugar, Starch, Burns 28

Chromatographic study on beet seeds and sugar beet. I.
Sugars and amino acids. Ivan Vavrušek (Sugar Research
Inst., Prague, Czech.). *Chem. Listy* 46, 453-7 (1952). --
Paper chromatography was used to study the content and
movement of sugars, amino acids, and their amides in various
parts of beets (*Beta vulgaris saccharifera*, *crassa*, and *rubra*)
during various periods of their life. During germination
the sugar content in seeds decreases and the amino acids
and their amides increase, whereas the order is reversed
during vegetation. M. Hudlický

Polarographic determination of fructose. Ivan Vuy-
rich. *Listy Českop.* 65, 171-8 (1940).—The dropping-
 Hg electrode reduces fructose at -1.8 V. in solns. of Na , NH_4 ,
 Ca , Rb , K , Na , Sc , Cs , Li , and quaternary amines. The
most distinct wave occurs with Ca or Li at pH 7.0 and is
not obliterated by small quantities of Na or K . The height
of the fructose wave is not a linear function of the fructose
concn. but is affected by the OH^- ion concn. and reaches a
max. at 0.002 N. The height of the fructose wave in Ca
solns. is 1.6 times as high as it is in Li solns., but Ca^{++}
has more effect than Li^+ ions. A rise in temp. in the range
15-75° increases the height of the fructose wave; a fall in
viscosity also increases the height of the fructose wave.
Frank Maresch

Frank Maresh



114

CA

Colloidal properties of penicillin from the biological point of view. Ivan Pavluch. Chem. Obzor. 25, 167-70 (1950); cf. C.A. 44, 7404e.—The colloidal properties of penicillin which form a basis for the explanation of its biol. activity have been discussed. Penicillin is highly capillary-active forming colloidal micelles in an aq. soln. which carry a certain elec. charge. The adsorption of penicillin on the microorganism has been proven experimentally and probably it is the first step of its activity. Jan Mleka.

CA

11C

Colloidal antibiotics and an attempt to explain their actions. Iyan, Vayrich and J. W. Phillips. *Chem. Ober* 23, 137 (1938). Some studies of the phys. properties of various types of penicillin indicate that penicillin should be regarded as a colloidal electrolyte, in aq. soln., very similar to soaps. The change of surface tension and other phys. properties of penicillin in fresh H_2O soln. and after aging was studied and compared with streptomycin and tyrothrycin and found to be very similar. For the first time, based on extnl. data, it is shown that adsorption and electrokinetic properties of antibiotics play a fundamental role in the reactions. The antibiotic properties of penicillin was increased immensely by a small addition of $CuCl_2$. Jan Micks.

MEDICAL LITERATURE CLASSIFICATION

2025 RELEASE UNDER E.O. 14176

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001859110008-8"

CD

A study of physical properties of penicillia. Ivan Vavruch (Research Inst. Czech. Sugar Industry, Prague). *Chem. Obzor* 25, 68-73 (1950).—The importance of a study of purely phys. and phys.-chem. properties of penicillin is stressed. The properties of penicillin, sodium salt (crystalline, G, and amorphous), such as the optical activity, elec. cond., surface tension, absorption, ion exchange, color, viscosity, n , and luminescence, have been investigated in detail and there is a possibility that these methods and measurements may be used for quant. determinations of penicillin in aq. soln. Some properties of Czech and American penicillins have been compared. Phys.-chem. properties based on the exps. confirm the assumption that penicillin mostly behaves in an aq. soln. as a colloidal electrolyte. Jan Míčka

KAVRUCH, A.

1126. Contribution to the theory of paper chromatography of inorganic compounds. II. Semiqu quantitative micro-determination of sodium and potassium. J. Yannik, M. Hertingnek and J.

The method, which is semiquantitative determination of sodium and potassium by a single procedure, was worked out. The method is suitable for the determination of 15 µg of K in the presence of 800 µg of Na, or 6 µg of Na in the presence of 700 µg of K. The whole procedure needs only 5-6 hr. and not more than 61 ml of the dissolved sample. The mean error amounts to ± 15% for K and ± 20% for Na. Calcium, Ba, Sr, Mg and ammonium

salts, sulphates and phosphates must be first removed and K and Na must be present in the form of chlorides. Lithium behaves similarly. The proposed method was tested by analyzing the ash of biological material.

J. ZYKA

Microbial origin of diacetin and acetoin in beer. II. A. Radványi-Kratochvílová, A. Vavříčková and D. Vojátková-Nováková (Brauwissenschaft, 1956, 8, 93-104; cf. J S F A, Abstr., 1956, II, 47).—The harmful effects of pedio cocci in beer are regarded not as due to a special property of the species, but to their disturbing effect on the assimilation of the micro-organisms of beer. The pedio cocci are attracted to the yeast cells by a similarity in electrical charges, thrive on certain yeast vitamins, interfere with the normal functions of the yeast, and promote yeast autolysis. Diacetyl, the principal beer spoilage product and a yeast poison, is produced by the pedio cocci by way of a cetaldehyde and a strain. Factors promoting the formation of diacetyl and the dissimilation of pedio cocci are examined. A polarographic method for the determination of minute amounts of aceton and diacetyl, and a new method for isolating pedio cocci are described.

P. S. ARCP

VAVRUCHOVA-A

Microbial source of diacetyl and acetoin in beer. A. Kocková,
Kratochvílová, A. Vavruchová and D. Vopátková-Nováková
(*Brauwissenschaft*, 1956, 9, 75-82).—The reactions involved in the
spoilage of beer, the development of the honey-like smell, the con-
version of acetaldehyde under anaerobic fermentation into acetyl-
methylcarbinol (acetoin) followed by the formation of diacetyl under
aerobic fermentation are discussed. The review also covers the use
of various strains of *Pediococci*, the preparation of pure cultures and
nutrients involved and collected data on primary and secondary
fermentations of various substances during the brewing process by
Pediococci and yeasts separately and together. The relationship
between the requirements of *Pediococci* and amino-acids (glutamic
and asparagine), and the resulting quantities of diacetyl produced,
are discussed. (65 references.)

E. M. J.

3

met

Vavříčková, Alena

Turbidity curves of blood plasma proteins. I. Zdeněk Vodrážka, Alena Vavříčková, and Eva Dvořáková (Ústav hematol., a krevní transfuze, Praha). *Chem. Listy* 48, 1212-1215 (1954); *et. C.A.* 48, 4031c.—The effect of pH on the solv. of blood plasma proteins at various ionic strengths was followed by automatic registration of the turbidity. The curves thus obtained were not equil. curves. Conditions for the detn. of individual proteins in mixts. were studied. M. Hudlický

VAVRUCHOVA, ALENA

Toxicity curves of blood-plasma proteins. Al. Zdenek

Vedralka, Alena Vavruchova, and Eva Uvocakova (Ustava,

Comptatione v. 2, Brno, Czechoslovakia, Prague, Československý

časopis pro chemii a techniku, 1961, No. 1, p. 1-10. The article
describes the toxicity curves of various blood plasma proteins, including the
protein of plasma proteins with cellulose, with serum, with org-

anisms, with protein precipitants such as $CaHCO_3$,

sulfur dioxide, and others, and the heat. M. H. Black

C. a.
1951

The Fermentation Institute

16

Quaternary ammonium compounds as disinfectants in breweries. Anna Kochová Kratochvílová and Alena Vavručková (Mikrobiol. Stálice, Praha-Brunák, ČSSR). No. 109918 Českoslov. Akad. Zemědělské 23, 349-54 (1951).—On the basis of Juillerat's (Schweiz.-Brau. Rundschau 60, 3 (1949)) work 2 products, "Polacid" (Swiss) and "Ajatin" (Czech.), were tested with *Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas fluorescens*, *Saccharomyces cerevisiae*, *Rhodotorula mucilaginosa*, *Saccharomyces pastorianus*, *Candida krusei*, *Aspergillus niger*, *Penicillium* species, *Neurospora sitophila*, *Oospora laevis*, and *Fusarium diversisporum*. Diln. 1:10⁴ inhibits the growth and diln. 1:10⁴ completely kills the bacteria in both compds. The microbicidal concn. for yeasts and yeast-like organisms is still 1:600,000, but 1:10⁴ has inhibiting effects. The most resistant yeast-like organism is *Candida krusei* which at concn. 10⁻⁷ g./ml. compd. did not show any reduction of the multiplicative energy. A concn. 1:10⁴ is as a rule sufficient to kill molds. *A. niger* is most resistant. "Ajatin" had to a certain degree a stronger effect on molds when resistant molds like *A. niger* and *N. sitophila* were tested. Jan Micka

✓ AVK/RK/J

Use of polarography and chromatography in food research
and industry. I. Vavřík (Výzk. ústav cukrovar., Prague,
Czech.). *Průmysl Potravin* 3, 140-4(1952).—A review
with 16 references. L. J. Urbánek

VAVRUKH, A.T., inzh.; GORBATENKO, A.Ye., inzh.

Organize steady ventilation of gassy mines. Bezop. truda v prom.

3 no.2:9-10 F '59.

(MIRA 12:2)

(Mine ventilation)

TITLE: AVERAGE ENERGY OF A ELECTRON AND ITS RELATION TO

TEMPERATURE. THE INFLUENCE OF THE TEMPERATURE ON THE LIFE TIME
OF AN IONIZING RADIATION SOURCE IS DETERMINED AS A FUNCTION OF THE
TEMPERATURE.

ABSTRACT. THIS IS A CONTINUATION OF EARLIER WORK BY ONE OF THE AUTHORS (Yukhnov-

Card 1/3

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APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001859110008-8"

Miroslav Vavruska

CZECHOSLOVAKIA / Laboratory Equipment. Apparatus, Their
Theory, Construction and Application.

F

Abs Jour : Referat Zhurnal Khimiya, No 4, 1958, 11130.

Author : Miroslav Vavruska.

Inst : Not given

Title : Arrangement of Contact Reactors.

Orig Pub : Shem. prumysl, 1956, 6, No 12, 499 - 501.

Abstract : A review of constructions of instruments for laboratory
investigation of contact reactions of organic compounds.

Card 1/1

VAVRUSKA, M.

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. G.2

Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11362.

Author : Beiranek, L. and Bazant, V.; Bazant, V. and Vavruska, M.
and Setinek, K., Bazant, V., and Sor, F.

Inst :

Title : Organosilicon Compounds. IX. The Gas Phase Methylation
of Chlorosilanes. X. The Hydrolysis of Phenylchloro-
silanes Over Aluminum Oxide. XI. Mass Balance in
the Direct Synthesis of Methylchlorosilanes.

Orig Pub: Sbornik Chekhoslov Khim Rabot, 22, No 4, 1192-1198, 1293-
1305, 1306-1309 (1957) (in German with an English summary)

Abstract: See RZhKhim, 1957, 44606, 60627, 68912.

Card : 1/1

VAVRUSKA, M.

Silicon organic compounds. XIII. Contribution to the mechanism of the direct synthesis of phenylchlorosilanes. p. 319 (Chemicke Listy, Vol. 51, no. 2, Feb. 1957.)

SO: Monthly List of East European Accession (EEAL) Vol. 6, no. 7, July 1957. Uncl.

Vavruska, N.

"Silicon organic compounds. XIII. Contribution to the mechanisms of the direct synthesis of phenylchlorosilanes." In German.

p. 1814. (Sbornik Chekhoslovatskikh Khimicheskikh Rabot, Vol. 22, No. 6, Dec. 1957, Praha, Czechoslovakia)

Monthly index of East European Accession (EEAI) LC, Vol. 7, No. 8, August 1958

VAVRUSKA, M.

"Design of contact reactors."

CHEMICKY PRUMYSL, Praha, Czechoslovakia, Vol. 6, No. 12, December 1956.

Monthly List of East European Acquisitions (EEAI), LC, Vol. 8, No. 9, September 1959.

Unclassified.

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001859110008-8

VZORKOVSKA RADA
Chemical Journal (Czechoslovakia)

... from Cyclic Compounds; etc.

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001859110008-8"

Vavruska, M.

Laboratory technology of contact reactions; dosage of liquids. p. 201.

Vol. 5, no. 5, May 1955.
CHEMICKY PRUMYSL

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No. 9,
Sept. 1955, Unclassified.

VAVRUSKA, M.

VAVRUSKA, M. Pyrolysis of diene series from cyclic compounds. III
Kinetics of fission of cyclohexene and cyclohexylacetate.
p. 553. *CHEMICKE LISTY*. Praha, Czechoslovakia.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

VAVRUSKA, N.

Plastic wood as construction material. Tech praca 16 no.8:607-609
Ag '64.

1. Enterprise Branch of the Czechoslovak Scientific and
Technological Society at the Sublima Breznice, Branch Center
of Technical Development of the Stredoceske drevarske zavody
National Enterprise.

PARNAS, I.; TUSHKEVICH, A.; FRENTAL, I.; LESYUK, I.; SHEVCHIKOVSKI, V.;
BRZHOZOVSKI, Ya.; PETER, I.; SPEKHT, G.; VAVRZHUSHUK, B.; GOLOMB, M.;
SKOMECHNY, V.; IL'CHISHIN, M.

Professor Dr. Jan Danelski, 1892-1958; an obituary. Gig. 1
(MIRA 12:9)
san. 24 no.7:92 J1 '59.
(DANELSKI, JAN, 1892-1958)

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CIA-RDP86-00513R001859110008-8

Variety has been identified

Organic acids compounds X. Hydrolysis of phenyl-

2

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CIA-RDP86-00513R001859110008-8"

VAVRUSKA M.

CZECHOSLOVAKIA/Organic Chemistry - Theoretical and General
Questions of Organic Chemistry.

G.

Abs Jour : Ref Zhur - Khimiya, № 9, 1958, 28642

Author : Vavruska, M.

Inst :
Title : Organosilicon Compounds. XIII. On the Mechanism of the
Direct Synthesis of Phenylchlorosilanes.

Orig Pub : Chem Listy, 51, No 2, 319-325 (1957) (in Czech); Spornik
Chekhoslov Khin Rabot, 22, No 6, 1814-1821 (1957) (in
German with a Russian summary)

Abstract : The mechanism of the direct synthesis of phenylchlorosilanes at 500° over a Cu catalyst has been investigated. The composition of the reaction products under these conditions is as follows (in %): phenyltrichlorosilane 35, diphenyldichlorosilane 7, SiCl₄ 24.5, C₆H₆ 24.5, high-boiling substances (bp > 200°) containing no silicon 9. The composition of the silicon-free high-boiling

Card 1/3

CZECHOSLOVAKIA/Organic Chemistry - Theoretical and General
Questions on Organic Chemistry.

G.

Abs Jour : Ref Zhur - Khimiya, No 9, 1958, 28642

substances was found to be as follows by chromatography on Al_2O_3 (in %): diphenyl 82.8, 1,3-diphenylbenzene 3.7, 1,4-diphenylbenzene 1.2, monochlorodiphenyls 1.5, dichlorodiphenyls 0.1, and unidentified substances 10.7. In order to gain information on the mechanism of the reaction, the reaction of chlorobenzene with phenyl radicals obtained by the pyrolysis of benzil and the reaction of chlorobenzene with reduced copper at 500° were investigated. The results obtained from these researchers are used as a basis for the discussion of the formation of side products in the direct synthesis of phenylchlorosilanes, in particular the formation of $\text{C}_6\text{H}_5\text{Cl}$ and of chlorinated diphenyls. In the opinion of the author the reaction of chlorobenzene with Cu leads to the formation of adsorbed phenyl radicals which react on one hand with

Card 2/3

10

- CZECHOSLOVAKIA/Organic Chemistry - Theoretical and General
Questions on Organic Chemistry;

G.

Abs Jour : Ref Zhur - Khimiya, No 9, 1958, 23642

the silicon to form phenylchlorosilanes and on the other,
undergo a number of side reactions leading to the forma-
tion of silicon-free side products.

For Communication XII see RZhKhim, 1958, 11363.

Card 3/3

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CIA-RDP86-00513R001859110008-8

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001859110008-8"

VAVRUSKA, MIRSKA

Organosilicon compounds. XIII. Mechanism of direct synthesis of organochlorosilanes

phenyl ring. The reaction of Ph_2SiH with Ph_2SiCl_2 gave a mixture of products in which 20 parts of Ph_2SiCl_2 were mixed with 10 parts Ph_2SiH , 10 parts Ph_2SiH_2 , and 10 parts non-volatile siliconous mixt. (IV) (b, above 200%). Besides small amounts of H_2 and HCl , (IV) was chromatographed in Al_2O_3 to give $\text{Ph}_2\text{Si}(2.5\%)$, $\text{m-Ph}_2\text{C}_6\text{H}_3(3.7\%)$, $\text{tert-Butyl-1-Ph}_2\text{SiH}$, monochlorotriphenylsilane (V), 1.17%, and dichlorotriphenylsilane (VI) 0.1%. Pyrolysis of (III) by passing 11 kg. of H_2 over 10 g. of (III) in PhCl through the reaction vessel at 100°C. and pressure of 1000 psi gave CO 6.47, V 1.75, VI 1.12, C_6H_6 0.75, and H_2 11.33. The yield of Ph_2SiH was 0.47. The mechanism of the reaction is not discussed.

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CIA-RDP86-00513R001859110008-8"

VAVRUSKA, MIROSLAV

Organosilicon compounds. IV. Continuous process for
the reaction of silicon tetrachloride with ethanol. Miroslav

(1)

Vavruska and Vladimír Baláž (Czech. Akad. věd, Praha).
Chem. Listy 48, 1598-1604 (1954); cf. C.A. 49, 9494. An
automatic column is designed for continuous reaction of Si-
Cl with EtOH to prep. Si(OEt)₄. EtOH and SiCl₄ are fed
continuously to the column in its lower part, the inlet of
EtOH being lower than that of SiCl₄. The reaction flask
is filled with SiCl₄, and heated at 105°C. Oestimate yields
of Si(OEt)₄ were 93.1%, and the estimation of SiCl₄ was
of practically quant. The app. may be used for the prep. of
condensed Et silicate in up to 40% SiO₂ if the EtOH, used for
the reaction contains 90% of the theoretical amt. of H₂O.
M. Hudlický

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CIA-RDP86-00513R001859110008-8

VAVRYNYUK, R.E.

Observations of ten variable stars. TSIr. Astron. obser. Lviv.
(MIRA 16.1.)
un. no. 39/40:22-40 1965.

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001859110008-8"

VAVRYNYUK, R.F.

New variable star SVS 1349 in Cygnus. Per. zvezdy 14 no.2:
(MIRA 17:2)
118 Je '62.

1. Lvovskaya astronomicheskaya observatoriya.

DAMAEKIN, B.B.; VAVRZHICHKA, S.; GRIGOR'YEV, N.B.

Attraction interaction between tetrabutyl ammonium cations
adsorbed on mercury. Zhur. fiz. khim. 36 no.11:2530~
2532 N'62. (MIRA 17:5)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

VAVRZHIN, SOBEK
CZECHOSLOVAKIA / Chemical Technology. Ceramics,
glass, cement, materials, concrete.

H

Abs Jour: Ref Zhur-Khimiya, No 12, 1958, 40494.

Author : Vavrzhin, Sobek.

Inst : Not given.

Title : Technology of the Preparation of Kavitite Concrete.

Orig Pub: Stavivo, 1957, 35, No 11, 444-447.

Abstract: The starting materials, properties of the concrete, as well as the equipment used in its testing are described.

Card 1/1

14

POLAND/Chemical Technology - Cellulose and Its Derivatives.
Paper.

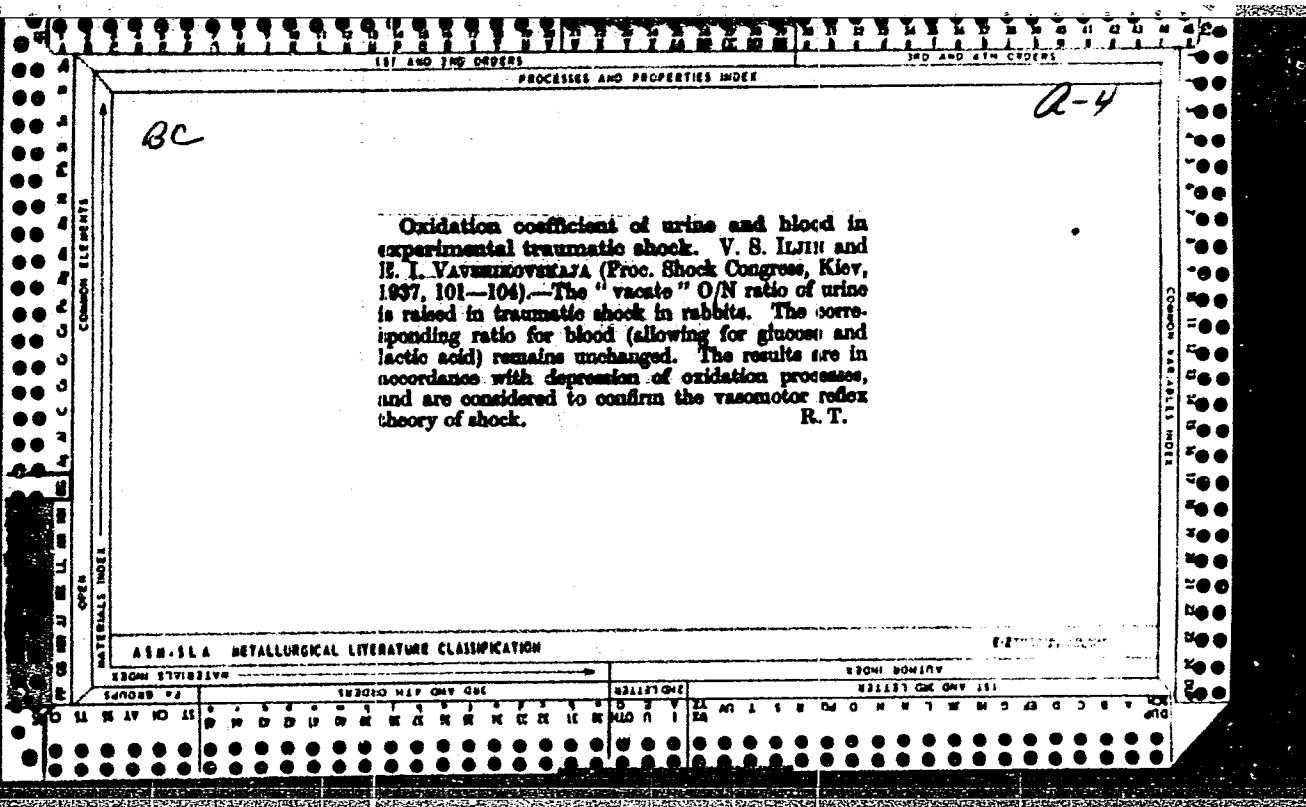
H.

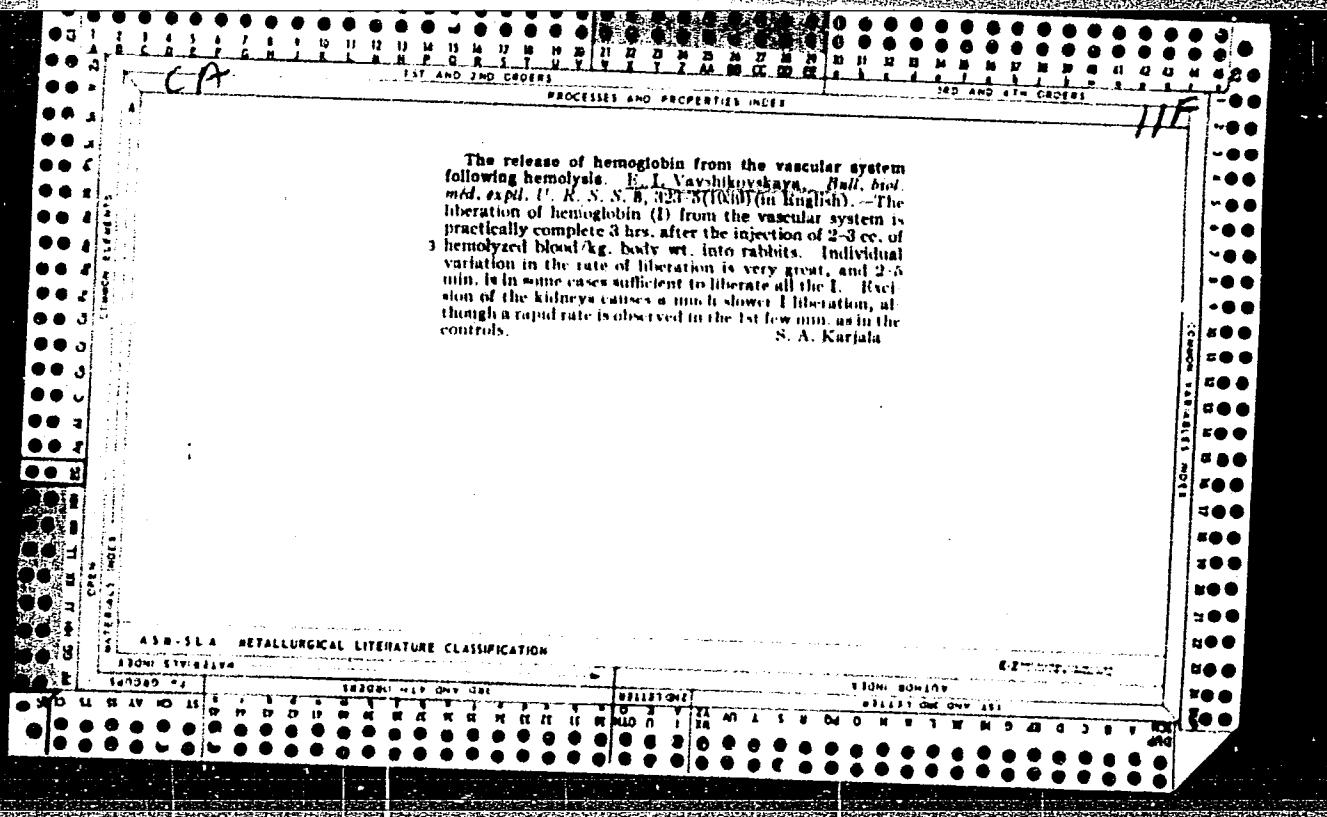
Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 56085
Author : Zhubranskaya, Vavshchak
Inst : -
Title : An Experimental Distillation of Tallol.
Orig Pub : Przegl. papiern., 1957, 13, No 12, 378, 3-4.

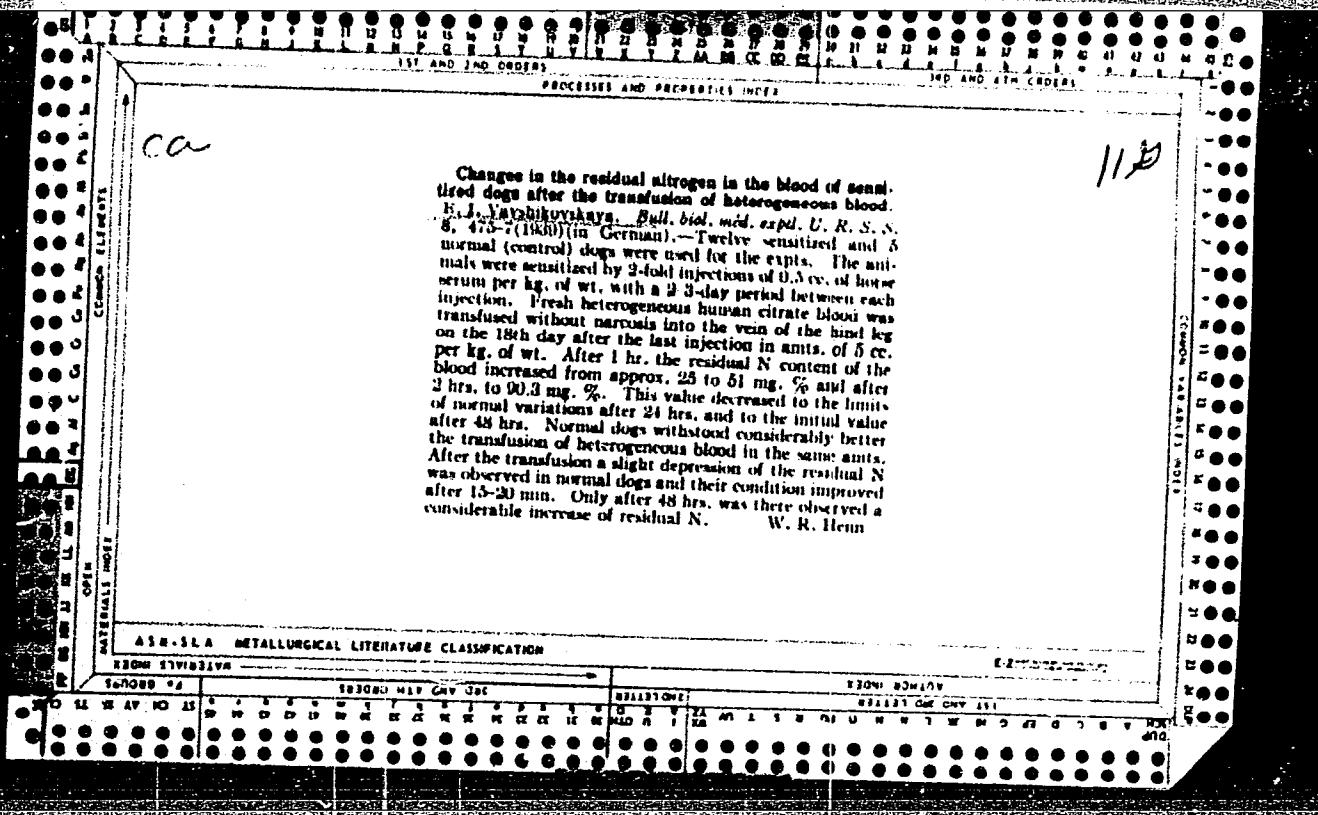
Abstract : The research laboratory of the Paper and Cellulose Institute (Polish People's Republic) studying waste products in cellulose production, demonstrated that the tallol distillation with a complete separation into fatty and tar acids can be accomplished with existing equipment. The tar acids and pitch obtained might be used in the preparation of glues in paper sizing. The pitch, due to its darker color, is used in sizing of bag paper, and other dark-colored papers.

Card 1/1

43







SIL'CHENKO, Ye. I.; KARZHEV, V. I.; OROCHKO, D. I.; VAVUL, A. Ya.; ROBO-ZHEVA, Ye. V.; BIRMAN, M. I.; SHAVOLINA, N. V.; MASINA, M. P.; GONCHAROVA, N. V.

In memory of Mariia Sergeevna Sudzilovskaia. Trudy VNIGI no.6:
146-158 '54. (MLRA 7:11)
(Sudzilovskaia, Mariia Sergeevna, 1904-1953)

S/081/62/000/005/086/112
B162/B101

11/9700

AUTHORS: Fal'kovskaya, A. A., Vavul, A. Ya., Kheyfets, Ye. M.,
Rapoport, I. B., Listov, V. A., Petyakina, Ye. I.

TITLE: Efficiency of some molybdenum and organosulfur compounds as
antiwear additives to lubricating materials

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 530,
abstract 5M224 (Sb. "Prisadki k maslам i toplivam".
M., Gostoptekhizdat, 1961, 71-79)

TEXT: It is shown that the additive R-15/30 (V-15/30), containing a
complex compound of Mo, greatly improves the antiwear properties of mineral
and synthetic lubricating materials; its action is particularly effective
when used jointly with organic compounds containing S, Cl, and other
elements. A disadvantage of the additive is its unsatisfactory thermal
stability in certain high-temperature lubricating materials. The Mo-organic
additive E-15/1 (B-15/1) can be used for preliminary application of
antifriction noncorroding films on friction surfaces; in this case, ✓B

Card 1/2

Efficiency of some molybdenum ...

S/081/62/000/005/086/112
B162/B101

the efficiency of high-temperature lubrication using various lubricating materials is greatly improved. The S-organic additive S-15/2A (V-15/2A) is extremely effective as an antiseizing medium for high-temperature lubricating materials. 1.5 - 3% of it added to lubricating materials, including those prepared on a base of Si-organic liquids, greatly improves their lubricating capacity under conditions of high-temperature friction of heavily loaded parts. [Abstracter's note: Complete translation.] ✓B

Card 2/2

L 35067-65 EWT(35067-65 EWT)(35067-65 EWT) 10-44 17 (3) 10/RX
ACCESSION NR: AP5006527 S/0286/65/000/006/0034/0034

AUTHOR: Shil'man, Ya. M.; Vseleyubskiy, S. B.; Alenina, O. S.; Saulina, V. V.;
Vavul, A. Ya.

TITLE: A method for producing modified carbon black. Class 22, No. 169153

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 34

TOPIC TAGS: carbon black

ABSTRACT: This Author's Certificate introduces a method for producing modified carbon black by introducing a mixture of solid hydrocarbon stock or to a mixture of solid hydrocarbon stock and a liquid hydrocarbon into a reactor and a wider selection of raw materials is provided by using organic or inorganic compounds of

the following nature: aromatic hydrocarbons, aliphatic hydrocarbons, heterocyclic hydrocarbons, chlorinated hydrocarbons, etc. (claims)

NO REF SCY: 000

OTHER: 000

Card //

LUPINOVICH, I.S., akademik; VAVULA, F.P., kand.biol.nauk

Distribution of nitrifying bacteria in peat-bog soils of the White
Russian S.S.R. Vestsii AN BSSR. Ser. biial. nav. no.4:5-13 '57.

(MIRA 11:6)

1.AN BSSR (for Lupinovich).
(WHITE RUSSIA--PEAT SOILS) (BACTERIA, NITRIFYING)

J

Country : USSR
Category : Soil Science. Fertilizers. General.
Abs Jour : RZhBiol., No 6, 1959, No 24641
Author : Lupinovich, I. S.; Golub, T. F.; Vavula,
Inst : F. P.
Title : Academy of Sciences BSSR.
Orig Pub : Concerning the Effect of Fertilizers on the
Abstract : Fertility of Peat-Boggy Soils.
 Vestsi AN BSSR. Ser. bival. no. 1956, No. 3,
 5-14

The joint application of lime, manure and
kainite on the peat-boggy soils of the low-
land type of the Minsk Bog Experimental Sta-
tion (1950-1953) caused considerable increase
in the soil of the quantity of ammonia-fixa-
tion bacteria, nitrification organisms, acti-
nomycetes and spore-forming microorganisms. Mi-
neralization processes of the organic residues

: 1/2

Card

soil. The potato har-
vests reached 173 percent
under the harves
Sukhodol'skogo

47

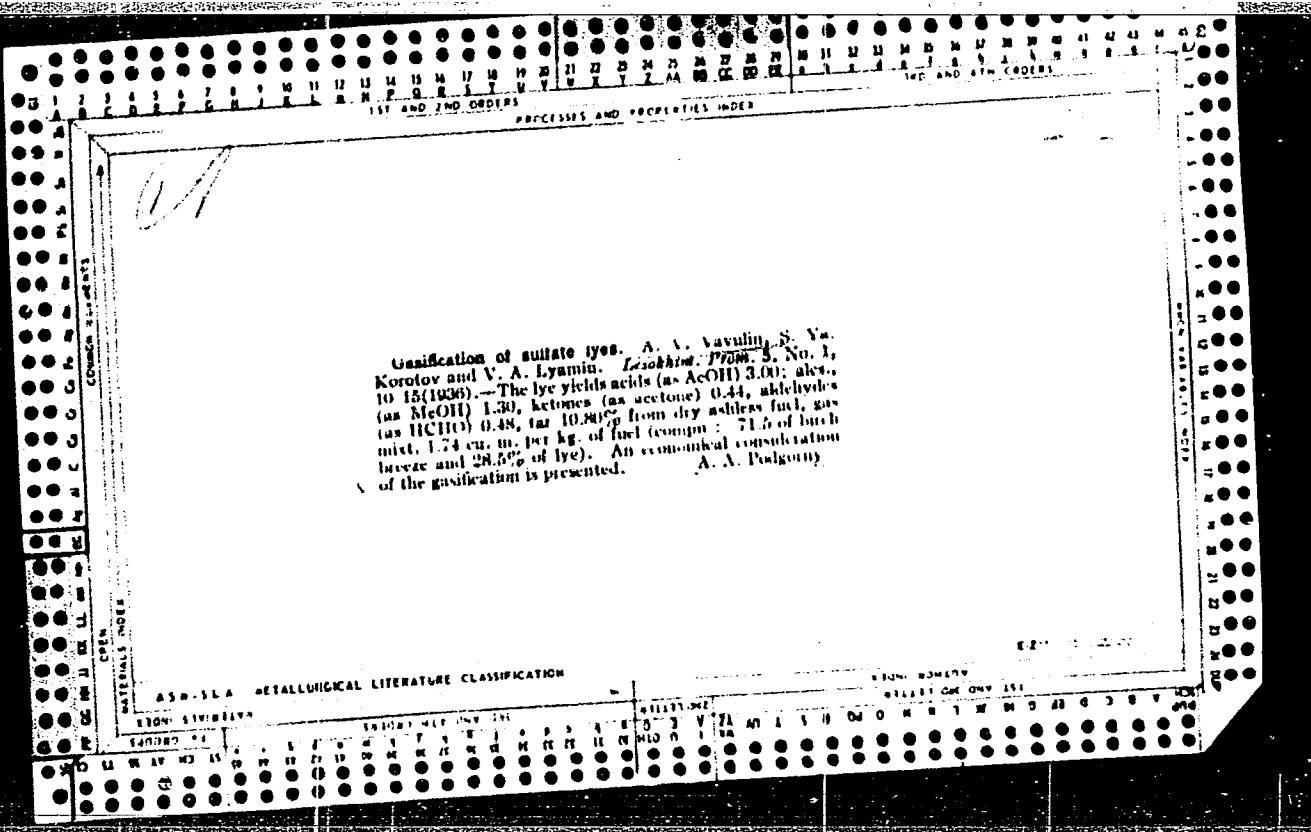
"APPROVED FOR RELEASE: 08/31/2001

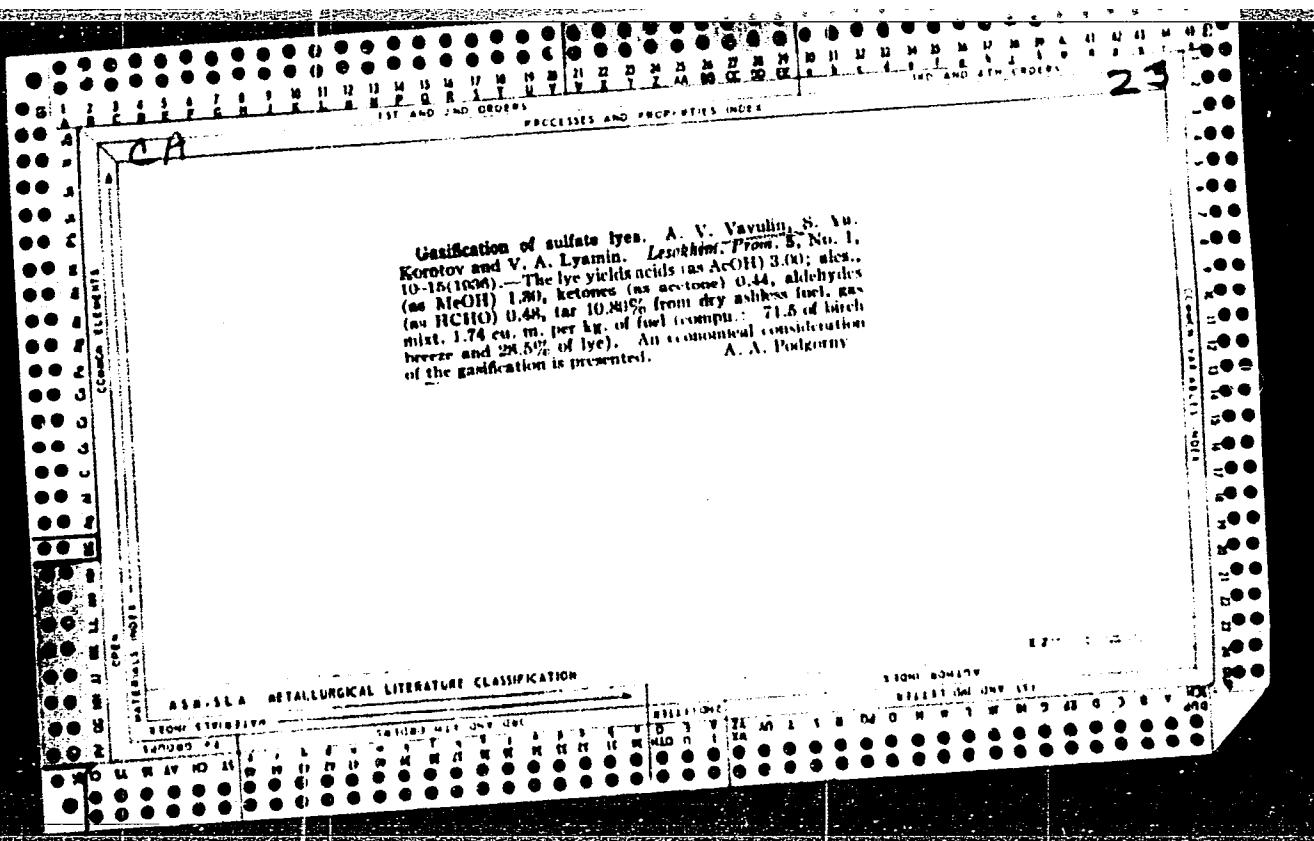
CIA-RDP86-00513R001859110008-8

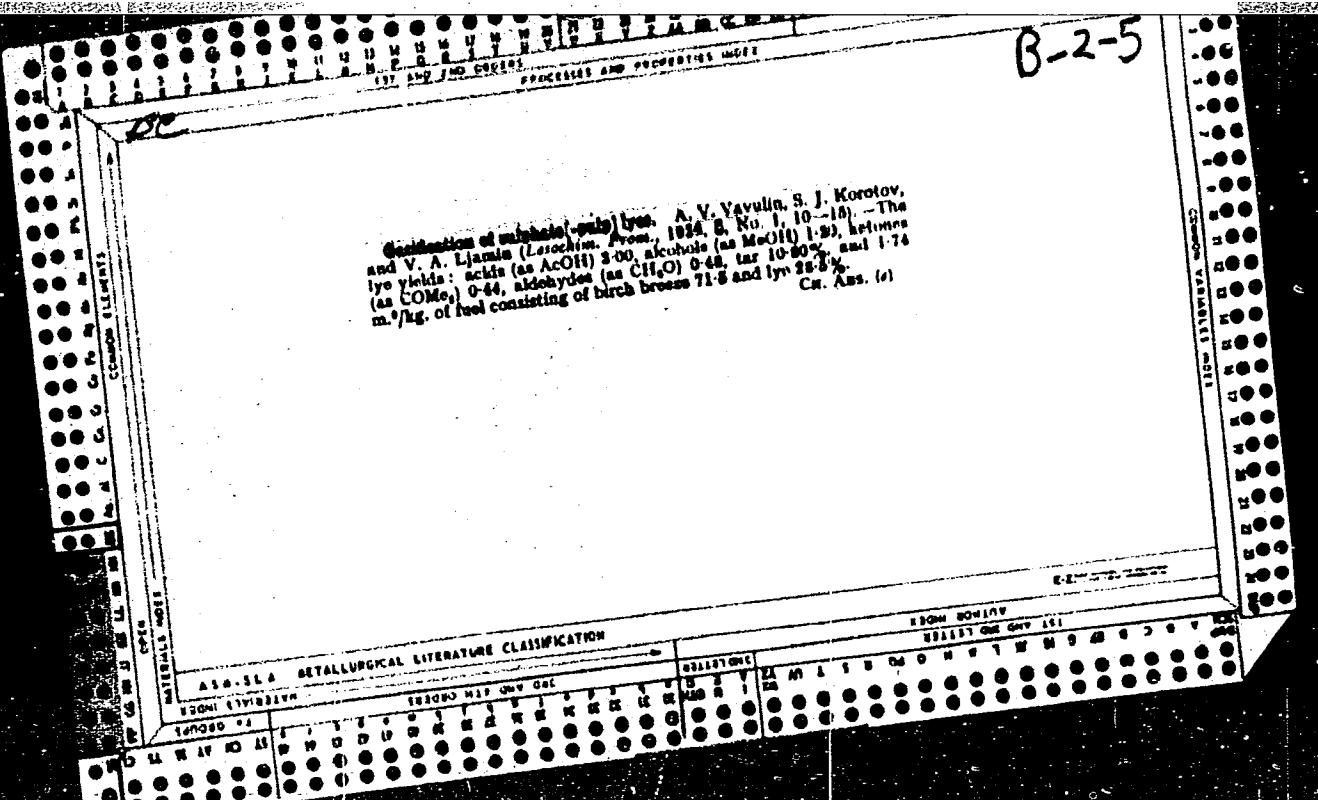
APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859110008-8"

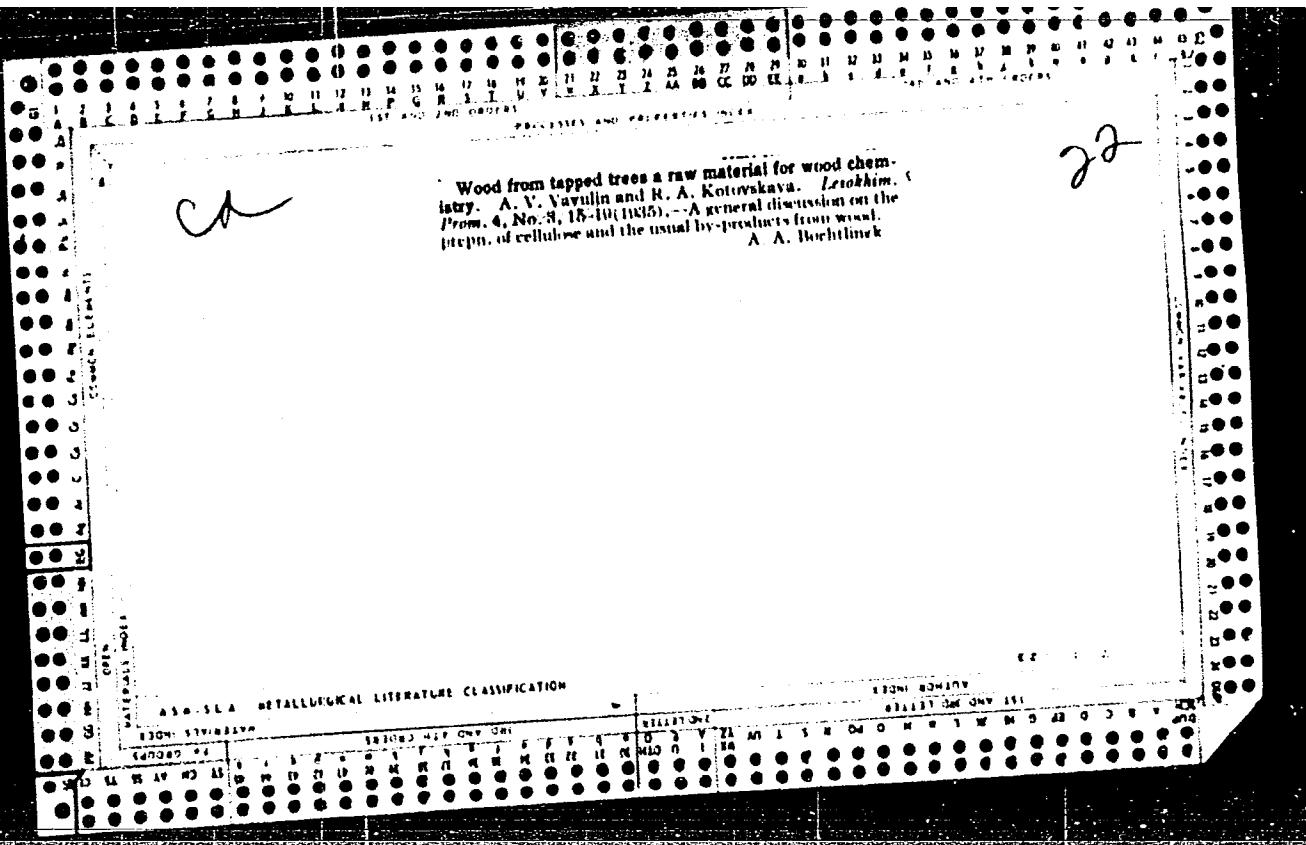
VAVULA, F.P.
LUPINOVICH, I.S.; GOLUB, T.F.; VAVULA, F.P.

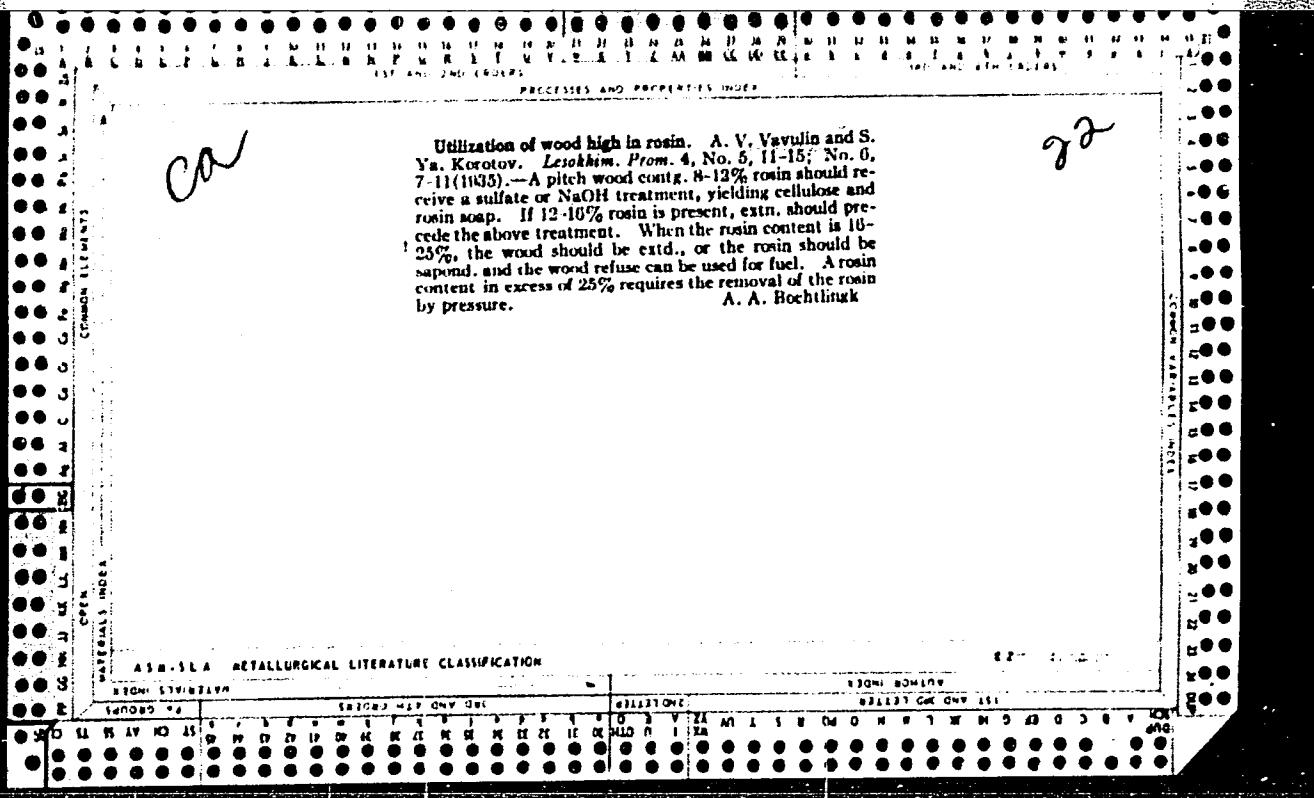
Effect of lime on crop yields on peat bog soils. Vestsi AN BSSR.
(MIRA 10:1)
Ser. biol. no. 3:5-14 ' 56.
(Lime) (Peat soils)











VAVULO, F.P.; KARBAKOVICH, A.I.

Distribution of sporeforming bacteria in different types of soil.
Mikrobiologiya 34 no.1:114-120 Ja-F '65.

(MIRA 18:7)

1. Belorusskiy nauchno-issledovatel'skiy institut pochvovedeniya.

VAVULU, F. P.

J

USER / Soil Science. Biology of Soils.

Abs Jour: Ref Zhur-Biol., No 21, 1958, 95737.

Author : Lupinovich, I. S., Vavulu, F. P.
Inst : Belorussian Scientific-Research Institute of
Melioration and Water Management.
Title : Spread of Microorganisms Which Destroy Cellulose
in the Peat-Marsh Soils of the BSSR.

Orig Pub: Tr. Belorussk. n.-i. in-ta melior. i vodn.
kh-va, 1956, 7, 317-329.

Abstract: The influence was studied of the various methods
of cultivating peat-marsh soils on the develop-
ment of microorganisms which destroy cellulose.
Destruction of cellulose proceeded more actively
in variants with autumn plowing plus spring disk-
ing and spring cultivation without plowing in com-
parison with full preparation of the soil from

Card 1/2

1. VAVULO, F. P.

2. USSR (600)

7. "The Influence of Local Strains of Azotobacter on the Spring Wheat Harvest
in Lowland Peat Soils", Izvestiya Akad. Nauk Belorus. SSR (News of the Acad Sci
Belorussian SSR), No 6, 1950, pp 51-55.

V.10,

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132, Unclassified.

1. TRIZNO, S. I. and VAVULO, F. P.

2. USSR (600)

7. "Concerning the Effectiveness of Bacterial Fertilizers on Peat and Swampy Soils", Sbornik Nauchnykh Trudov In-ta Melioratsii Vodnogo i Bolotnogo Khoz-va Akademii Nauk Belorus. SSR (Symposium of Scientific Works of the Institute for Development of Water and Swamp Economy, Acad Sci Belorussian SSR), Vol 1, 1951, pp 132-153.

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952 pp 121-132, Unclassified.

X VAVULO, F.P.

LUPINOVICH, I.S., akademik; VAVULO, F.P., kandidat biologicheskikh nauk.

Distribution of cellulose-decomposing micro-organisms in peat-bog
soils of the White Russian S.S.R. Trudy Inst.mel.,vod.i bol.khoz.
AN BSSR 7:317-329 '56. (MLRA 10:5)

1. Akademiya nauk Belorusskoy SSR. (for Lupinovich)
(Bacteria, Cellulose-decomposing)
(White Russia--Peat soils)

VAVULO, F.P.

How various methods of cultivating lowland peat bogs affect soil
micro-organisms. Trudy Inst. mikrobiol. no.7:285-291 '60.
(MIRA 14:4)

1. Belorusskiy nauchno-issledovatel'skiy institut melioratsii i
vodnogo khozyaystva Akademii sel'skokhozyaystvennykh nauk BSSR.
(PEAT SOILS) (SOIL MICRO-ORGANISMS)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001859110008-8

VAVULO, I.V., inzh.

Ultrasonic testing of the spot welding of aluminum alloys.
Svar.proizv. no.7:37-39 Jl '62. (MIRA 15:12)
(Aluminum alloys--Welding)(Ultrasonic testing)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001859110008-8"

VAVULO, I. V. (Engineer)

"The prospects of welding with a three-phase arc in argon with an unmelted electrode".

Report presented at the regular conference of the Moscow city administration NTO

Mashprom, April 1963.

(Reported in Avtomaticheskaya Svarka, No. 8, August 1963, pp 93-95, M. M. Popekhin)

JPRS24,651 - 19 May 64

18.1V10

35020
S/135/62/000/004/013/016
A006/A101

AUTHORS: Simonik, A. G., Vavulo, I. V., Engineers

TITLE: Removal of cracks in the weld crater of aluminum alloys in argon-arc welding

PERIODICAL: Svarochnoye proizvodstvo, no. 4, 1962, 34-35

TEXT: Crack formation in weld joint craters depends on the pool volume and the metal cooling rate. The cooling rate can be reduced by ensuring the gradual decrease of the current voltage. Tests were made with the aid of a welding rheostat of power supply source УПК-350 (IPK-350) with rectilinear or exponential current decrease. The electric-driven stepped rheostat is connected to the magnetizing circuit of the saturation throttle. It has 14 steps of 300 ohm total resistance. The consecutive connection to the circuit of different resistances, ranging from $R_1 = 1.43$ to $R_{14} = 152$ ohm, ensures changes in the welding current, which approach the rectilinear law. These changes of resistance values regulate the rotation of the rotor and the time of welding-up the crater. Best results are obtained if the welding-up time is 8 - 10 sec. The described mechanism, ensuring the rectilinear decrease of welding current, can

Card 1/2

Removal of cracks in the weld crater ...

S/135/62/000/004/013/016
A006/A101

be recommended for the welding-up of craters in automatic and manual process and to remove cracks in the weld crater. The mechanism can be recommended for aluminum alloys and other crack-sensitive metals and alloys. There are 3 figures.

Card 2/2

RABINOVICH, I.Ya., doktor tekhn.nauk; VAVULO, I.V., inzh.

Electric and technological characteristics of a three-phase welding
arc in argon-arc welding of aluminum alloys. Svar. proizv. no.10:7-
10 0 '63.
(MIRA 16:11)

38826
S/135/62/000/007/009/010
A006/A101

1.2300

AUTHOR: Vavulo, I. V., Engineer

TITLE: Ultrasonic control of spot-welded aluminum alloys

PERIODICAL: Svarochnoye proizvodstvo, no. 7, 1962, 37 - 39

TEXT: The author together with A. M. Anikeyev and A. G. Zharov checked the ultrasonic control method with the use of a prismatic finder, recommended for industrial use. The experiments were made with flaw-detector УЗД-7Н (UZD-7N) at 2.5 mega-cycle frequency. Д.16 (D16), В95 (V95) and АМг6 (AMg6) alloy specimens, 0.8 + 0.8 and 7 + 7 mm thick, were welded under different conditions, in particular, with poor penetration of the welds. The flaw detector was adjusted on specimens with high-quality welds. The conditions were corrected until the diameter of welded spots determined by the flaw detector coincided with the diameter of spots measured after mechanical breakdown of the specimens. The accuracy of measurements made with the flaw detector of the spot nucleus was compared with the true diameter according to formula *✓*

Card 1/3

S/135/62/000/007/009/010

A006/A101

Ultrasonic control of spot-welded aluminum alloys

$$\left(\frac{D_{\text{meas}}}{D_{\text{true}}} - 1 \right) \cdot 100\%.$$

To study the possibility of determining the degree of penetration in the spot without its breakdown, the damping effect of ultrasonic oscillations in aluminum alloys was investigated in a 5 - 50 mega-cycle range by a method developed at АЭТИ (LETI) imeni Lenin, in the following 2 ways: 1) through-inspection with the use of 2 piezo-elements, one serving as an ultrasonic emitter, the other one as a receiver; 2) by the reflection method, when the same piezo-element acted both as an emitter and a receiver. The experiment yielded the following results: The accuracy of measuring the diameter of the welded spot is not over ±20% (at 80 - 85% agreement of the measured results with the true diameter of the spot). The method does not assure a reliable detection of poor fusion of welded spots. The subjective results and labor consuming operation of the method limit its industrial application. In the 5 ~ 52.5 megacycle frequency range in all the investigated alloys, increased damping of the ultrasonic oscillations was observed with higher frequency, according to the law approaching that of a straight line. Damping of the ultrasonic oscillations in the investigated alloys is low, dif-

Card 2/3

Ultrasonic control of spot-welded aluminum alloys

S/135/62/000/007/009/010
A006/A101

fering only slightly in rolled and cast structures. The use of the damping effect in the investigated frequency range does not yield clear results concerning the structural division of aluminum alloys. Further investigations are imperative to improve the method and the ultrasonic equipment. There are 4 figures and 2 tables.

Card 3/3

VAVULO, S.A., podpolkownik meditsinskoy sluzhby

Procedure of the registration of a claim for a proposed
invention. Voen. med. zhur. no.10:94-96 O '65.

(MIRA 18:11)

TSITOVICh, Igor' Sergeyevich; YAVULO, Vasiliy Andreyevich; KHVAL',
Boris Nikolayevich; GLINKIN, P.P., red.; MORGUNOVA, G.M.,
tekhn. red.

[Gear wheels of motor vehicles and tractors; design] Zubchaste
kolesa avtomobilei i traktorov; proektirovaniye i raschet.
Minsk, Izd-vo M-va vysshego, srednego spetsial'nogo i pro-
fessional'nogo obrazovaniia BSSR, 1962. 394 p.

(MIRA 16:4)

(Motor vehicles---Transmission devices) (Gearing)

TSITOVIDCH, I.S., kand.tekhn.nauk; VAVULO, V.A., inzh.

Defects of automobile gear teeth, which appear during operation,
and their prevention. Mash.Bel. no.5:162-167 '58.
(MIRA 12:11)

(Automobiles--Transmission devices)
(Mechanical wear)

VAVULO, V.A., inzh.; RUSAKOV, V.V., inzh; TSVYLEV, I.S., inzh.; CHURAYEV,
S.P., inzh.

Peat cutting machines. Mekh.i avtom.proizv. 14 no.9:34-36
S '60. (MIRA 13:9)
(Peat machinery)

ANTONOV, V.Ya., kand.tekhn.nauk; BEZZUBOV, N.D., kand.tekhn.nauk; BELOKO-PYTOV, I.Ye., kand.sel'skokhoz.nauk; BLYUMENBERG, V.V., kand.tekhn.nauk; BOGDANOV, N.N., kand.tekhn.nauk; BHAGIN, N.A., inzh.; VASIL'IEV, Yu.K., inzh.; VIMOGRADOV, V.A., inzh.; ROZENBERG, B.I., inzh.; GOR-GIDZHANYAN, S.A., kand.tekhn.nauk; ZIZA, A.A., kand.sel'skokhoz.nauk; KALABUKHOV, M.V., agronom-meliorator; KOLOTUSHKIN, V.I., inzh.; KORCHU-NOV, S.S., kand.tekhn.nauk; KRYUKOV, M.N., dotsent; VAVULO, V.A., inzh.; NAUMOV, D.K., kand.tekhn.nauk; OLENIN, A.S., inzh.; PROVORKIN, A.S., inzh.; PROKHOROV, N.I., dotsent; RASKIN, G.I., inzh.; SAVENKO, I.V., inzh.; SERGEYEV, B.F., kand.tekhn.nauk; STOYLIK, M.A., inzh.; SUKHA-NOV, M.A., inzh.; TOPOL'NITSKIY, N.M., kand.tekhn.nauk; TYUREMNOV, S.N.. doktor biol.nauk, prof.; PATCHIKHIMA, O.Ye., kand.sel'skokhoz.nauk; TSVETKOV, B.I., inzh.; CHUBAROV, N.D., inzh.; MANDEL'BAUM, A.I., inzh.;

(Continued on next card)

ANTONOV, V.Ya.---(continued) Card 2.

YARTSEV, A.K.; SAMSONOV, N.N., inzh., glavnnyy red.; BERSHADSKIY, L.S., inzh., nauchnyy red.; VARENTSOV, V.S., kand.tekhn.nauk, nauchnyy red.; VYSOTSKIY, K.P., kand.tekhn.nauk, nauchnyy red.; GORINSHTEYN, L.L., kand.tekhn.nauk, nauchnyy red.; GORYACHKIN, V.G., prof., nauchnyy red.; YEFIMOV, P.N., kand.tekhn.nauk, nauchnyy red.; KUZEMAN, G.I., kand.tekhn.nauk, nauchnyy red.; KULAKOV, N.N., kand.tekhn.nauk, nauchnyy red.; KUTAIS, L.I., prof., doktor tekhn.nauk, nauchnyy red.; MIRKIN, M.A., inzh., nauchnyy red.; SEMENSKIY, Ye.P., kand.tekhn.nauk, nauchnyy red.; SOKOLOV, A.A., kand.tekhn.nauk, nauchnyy red.; KHAZANOV, Ya.N., dotsent, nauchnyy red.; KHALUGO, A.K., inzh., nauchnyy red.; TSUPROV, S.A., dotsent, nauchnyy red.; SHTEYNBOK, G.D., inzh., nauchnyy red.; KOLOTUSHKIN, V.I., red.; SKVORTSOV, I.M., tekhn.red.

[Reference book on peat] Spravochnik po torfu. Moskva, Gos.energ. izd-vo, 1954. 728 p.
(MIRA 13:?)

1. Chlen-korrespondent AN BSSR (for Goryachkin).
(Peat--Handbooks, manuals, etc.)

VAVULO, V.A., inzhener.

Improve the drive and operating mechanisms of the ladder.
Torg. prom. 33 no.8:35 '56. (MLRA 10:2)

1. Rostorg Ministerstva promyshlennosti stroitel'nykh
materialov RSFSR.
(Excavating machinery)

VAVZHINCHAK, S. V.

Cand Agr Sci - (diss) "Economic-biological quality of high-productivity bark [kora]." Moscow, 1961. 22 pp; (Moscow Order of Lenin Agricultural Academy imeni K. A. Timiryazev); 200 copies; price not given; (KL, 5-61 sup, 197)

VAVZHINCHAK, S.V., aspirant; ARZUMANYAN, Ye.A., prof., doktor selkokhoz.nauk,
nauchnyy rukovoditel'

Biochemical and morphological blood picture of Black and white cows
with various milk records. Izv.TSKhA no.1:121-131 '61.

(Dairy cattle) (Blood)

(MIRA 14:3)

VAXELL, SVEN

VAXELL, SVEN. Vtoraia Kamchatskaia ekspeditsia Vitusa Beringa; perevod s rukopisi na nemetskem iazyke I.U.I. Bronshtaina; po red. i s predisl. A.I. Andreeva. Leningrad, Izd-vo Glavsevmorputi, 1940. 172 p.

CtY MH NN DLC: G296.B4W3

SO: LC, Soviet Geography, Part I, 1951, Uncl.

VAYAKAS, Khel'mut Yanovich[Vajakas, Helmut]; KOVAL'ZON, F.P., red.;
TOKER, A.M., tekhn. red.

[Equipment of a study room for preparing tractor operators and
farm electricians] Oborudovanie uchebnykh kabinetov dlia pod-
gotovki traktoristov i sel'skikh elektrikov. Moskva, Vses.
uchebno-pedagog.izd-vo Proftekhizdat, 1961. 43 p.

(MIRA 15:2)

1. Zamestitel' direktora po uchebno-proizvodstvennoy rabote
yarva-yaniskogo uchilishcha mekhanizatsii sel'skogo kho-
zyaystva No.6, Estonskaya SSR (for Vayakas).

(Agricultural engineering--Study and teaching)

VAYBOIM, V. S.

"Methods for Automatic Supression of Noise
During Rerecording From a Phonograph Record."
Thesis for degree of Cand. Technical Sci.
Sub 30 Nov 50, All- Union Sci Res Inst of
Cinematography

Summary 71, 4 Sep 52, Dissertations Presented
for Degrees in Science and Engineering in Moscow
in 1950. From Vechernyaya Moskva. Jan-Dec 1950.

L 26378-66 EWT(1)/T LJP(c) GW

ACC NR: AP6007686

(A)

SOURCE CODE: UR/0413/66/000/003/0067/0067

AUTHORS: Sheler, Khorst; Vaybrekht, Otto; Kheyrot, Aleksander; Khartvig, Khorst

44

43

B

ORG: none

TITLE: Device for differential transformation of aerial photographs. Class 42,
No. 178506

SOURCE: Izobreteriya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 67

TOPIC TAGS: aerial photography, optics, aerial photograph, photographic device

ABSTRACT: This Author Certificate presents a device for differential transforming of aerial photographs. The device is used in conjunction with a photogrammetric device for processing aerial photographs. It contains an inverstor which acts on the basic law of optics, and a photograph support and screen which may be positioned relative to one another in three mutually perpendicular planes. Accuracy in scaling is facilitated by the inverstor which features a reduction device for control of the coefficient of aerophoto transformation with allowance made for focal distance. This distance corresponds to the transform coordinates of the current point of aerophoto slope on the horizontal aerial photograph. The inverstor

Card 1/2

UDC: 528.722.31

L 26378-66

ACC NR: AP6007686

is made in the form of directional-controlled rods and connecting links attached to each rod, thus allowing rotation about the X-X axis and intersection of the directional at a point on the X-X axis. Electrical control of the coefficient of transformation is maintained by an electrometer circuit controlling the variation of distance from the objective to the photo and from the objective to the screen. This is an electrical bridge circuit for processing data coming from the photogrammetric device.

V
SUB CODE: 14/ SUBM DATE: 21Nov63

Card 2/2 CC

(Larch and fir tree)

VAYCHIS, M.V., Cand Biol Sci -- (diss) "Effect of plantings
of deciduous and fur trees ~~on~~ ^{upon turfy} ~~soil and~~ ^{soil} podzolic
and their productivity ~~in relation to~~ ^{as a function of} changes in timber growing
properties. (According to studies in Latvian SSR)." Mos, 1958,
20 pp (Acad Sci USSR. Inst of Timber) 150 copies (KL, 32-58, 107)

VAYCHIS, M.V. [Vaičys, M.V.]

Effect of the European larch on changes in turf-Podzolic
soils [with summary in English]. Pochvovedenie no.5:12-21 My
'58. (MIRA 11:6)

1. Institut lesa AN SSSR.
(Podzol) (Larch)

COUNTRY : USSR
UNIVERSITY : Soil Science. Soil Genesis and Geography.

JRS. JOUR. : Rshodol., No. 3 1959, No. 10619

ADDITIONAL
INFO.
TITLE : Vaychis, N. V.

ON THE SUBJECT OF THE INFLUENCE OF EUROPEAN LARCH
ON THE CHANGES IN TURF-PEDOZOLIC SOILS.

CONT. PUB. : Pochvovedeniye, 1958, No. 5, 12-21

FROM THE AGE OF 20 YEARS, EUROPEAN LARCH ON TURF-PEDOZOLIC
SOILS IN LITHUANIAN SSR, SEM, ALREADY GIVES RISE TO A
MORE INTENSIVE CYCLE OF ASH MATTER IN THE SYSTEM OF PLANTING
- SOIL - LITTER. DECOMPOSITION OF LARCH LITTER PROCEEDS
MORE VIGOROUSLY THAN THAT OF SPRUCE LITTER. OBSERVED IN
THE SOIL UNDER LARCH IS AN INCREASE IN THE AMOUNT OF ORGANIC
MATTER AND ALSO OF THE ABSORBED Ca AND Mg, AN IN-
CREASE IN THE DEGREE OF SATURATION OF THE BASES AND

VAYCHUNAS, S.

Rules for the passing of ships with seagoing dredges. Mor. flot
21 no. 6:16-18 Je '61. (MIRA 14:6)

1. Nachal'nik morskey inspeksi Azevo-Chernomorskogo morskogo
puti. (Rule of the road at sea)

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